

ABSTRACT OF THE DISCLOSURE

A curable underfill encapsulant composition that is applied directly onto semiconductor wafers before the wafers are diced into individual chips.

5 The composition comprises a thermally curable epoxy resin, a solvent, an imidazole-anhydride curing agent, fluxing agents, and optionally, wetting agents. Various other additives, such as defoaming agents, adhesion promoters, flow additives and rheology modifiers may also be added as desired. The underfill encapsulant is B-stageable to provide a coating on the

10 wafer that is smooth, non-tacky and will allow the wafer to be cleanly diced into individual chips. A method for producing an electronic package containing the B-stageable material may also utilize an unfilled liquid curable fluxing material on the substrate to which the chip is to be attached.

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